



**Fahrenheit**  
by Power Acoustik

**BC-SERIES...**



**ELECTRONIC  
SIGNAL PROCESSOR &  
CROSSOVER NETWORK**

## **OPERATING INSTRUCTIONS**

**BC-LINE  
BC-BASS  
BC-2X  
BC-3XQ**

Before using the unit, please read this manual thoroughly, and retain it for future reference

|   |           |
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# I N T R O D U C T I O N

Congratulations, and thank you on your purchase of **Farenheit** BC-series car audio crossover unit.

You have selected one of finest audio reproduction products available today.

In choosing the BC-series signal processor and car audio crossover have made possibly the single largest improvement you can add to your audio system.

String to provide you, the consumer, the highest production quality and sonic reproduction available has become a personal goal of the staff at **Farenheit** and you have selected a excellent example.

Check out our full line of amplifiers, signal processors, dynamic component systems and coaxial speakers, and of course our wide selection of high performance subwoofers.

Explore the potential of **Farenheit**, and most all, enjoy the music !

# I M P O R T A N T

## PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION !

The quality of installation may affect the performance and reliability of your **Farenheit** signal processor and car audio crossover.

Please take a few minutes to read the manual carefully. The time you spend on installation will prove to be worthwhile when it's time to listen to your investment.

# FEATURES

## BC-LINE

### HIGH PERFORMANCE ELECTRONIC LINE DRIVER

Chrome Finish with Removable Plexi Control Cover  
 Gold Plated RCA Jacks  
 1-Way Stereo Input, 1-Way Stereo Output and Stereo Line out  
 Adjustable Input Sensitivity  
 Remote Power On/Off by Car Stereo  
 LED Power On Indicator  
 LED Overload Indicator  
 DC to DC PWM Power Supply  
 Balanced Signal Output

# SPECIFICATIONS

|                                    |                            |
|------------------------------------|----------------------------|
| <b>Input Impedance</b>             | 10K ohm                    |
| <b>Frequency Response</b>          | 10-25,000Hz                |
| <b>Maximum Output Level</b>        | 7.0V RMS                   |
| <b>T. H. D.</b>                    | 0.05%                      |
| <b>Signal to Noise Ratio</b>       | 105dB                      |
| <b>Channel Separation</b>          | 75dB                       |
| <b>Idle Current</b>                | 50mA                       |
| <b>Power Supply</b>                | DC 10-16V, Negative Ground |
| <b>Dimensions(W x H x D)Inches</b> | 5.6 x 1.1 x 3.5            |
| <b>Weight</b>                      | 485g                       |

# FEATURES

## BC-BASS

### HIGH PERFORMANCE BASS DRIVER WITH REMOTE CONTROLLER

Chrome Finish with Removable Plexi Control Cover  
Gold Plated RCA Jacks  
1-Way Stereo Input, 1-Way Stereo Output  
Remote Power On/Off by Car Stereo  
LED Power On Indicator  
LED Overload Indicator  
DC to DC PWM Power Supply  
Adjustable Input Sensitivity  
Stereo/ Mono Switch  
Separate Left & Right Variable Phase Control(0-180°)  
Built-in Power Protection Fuse (1A)  
Remote Control for Output Level, Q Fator and Boost Frequency

# SPECIFICATIONS

|                                       |                            |
|---------------------------------------|----------------------------|
| <b>Input Impedance</b>                | 10K ohm                    |
| <b>Bass Boost Frequency(Variable)</b> | 40-400Hz                   |
| <b>Q Level (Variable)</b>             | 2-20                       |
| <b>Maximum Output Level</b>           | 8.0V RMS                   |
| <b>T. H. D.</b>                       | 0.05%                      |
| <b>Signal to Noise Ratio</b>          | 100dB                      |
| <b>Channel Separation</b>             | 70dB                       |
| <b>Idle Current</b>                   | 50mA                       |
| <b>Power Supply</b>                   | DC 10-16V, Negative Ground |
| <b>Dimensions(W x H x D)Inches</b>    | 6.7 x 1.4 x 4.3            |
| <b>Weight</b>                         | 910g                       |

# FEATURES

## BC-2X

### 2-WAY ELECTRONIC CROSSOVER

Chrome Finish with Removable Plexi Control Cover  
 Gold Plated RCA Jacks  
 1-Way Stereo Input, 2-Way Stereo Output  
 Remote Power On/Off by Car Stereo  
 LED Power On Indicator  
 DC to DC PWM Power Supply  
 Phase Reverse and Stereo/ Mono Switch on Low Pass  
 Infinitely Variable Low Pass Crossover  
 Infinitely Variable High Pass Crossover  
 Frequency Multiplier Switch on High Pass Crossover

# SPECIFICATIONS

|   |                            |
|---|----------------------------|
| <b>Input Impedance</b>                  | 10K ohm                    |
| <b>Maximum Input Signal Level</b>       | 8.0V                       |
| <b>Maximum Output Signal Level</b>      | 8.0V                       |
| <b>Low Pass Crossover, 18dB/octave</b>  | 40-400Hz                   |
| <b>High Pass Crossover, 18dB/octave</b> | 40-8000Hz                  |
| <b>T. H. D.</b>                         | 0.05%                      |
| <b>Signal to Noise Ratio</b>            | 100dB                      |
| <b>Channel Separation</b>               | 70dB                       |
| <b>Idle Current</b>                     | 50mA                       |
| <b>Power Supply</b>                     | DC 10-16V, Negative Ground |
| <b>Dimensions(W x H x D)Inches</b>      | 5.6 x 1.4 x 4.8            |
| <b>Weight</b>                           | 675g                       |

# FEATURES

**BC-3XQ**

## 3-WAY ELECTRONIC CROSSOVER WITH REMOTE CONTROLLER

Chrome Finish with Removable Plexi Control Cover  
 Gold Plated RCA Jacks, 3-Way Stereo Input, 3-Way Stereo Output  
 Remote Power On/Off by Car Stereo  
 LED Power On Indicator, DC to DC PWM Power Supply  
 Stereo/ Mono Switch on Low Pass Channel  
 Low Pass Channel Selector for "Mixed" or "Direct" Low Pass Input  
 Fully Adjustable Low, Mid and High Pass Output Levels  
 Infinitely Variable Low Pass, Mid-Range and High Pass Crossover  
 Band Pass/High Pass Switch for Mid-Range Channel  
 Bass Boost/Frequency Volume for Low Pass Channel  
 Remote Control for Output Level, Q Factor and Phase Shift Control

# SPECIFICATIONS

|   |                            |
|---|----------------------------|
| <b>Input Impedance</b>                  | 10K ohm                    |
| <b>Maximum Input Signal Level</b>       | 8.0V                       |
| <b>Maximum Output Signal Level</b>      | 8.0V                       |
| <b>Low Pass Crossover, 18dB/octave</b>  | 40-400Hz                   |
| <b>Mid-Range Crossover, 18dB/octave</b> | 40-7000Hz                  |
| <b>High Pass Crossover, 18dB/octave</b> | 40-8000Hz                  |
| <b>Bass Boost Level</b>                 | 0-18dB                     |
| <b>Bass Boost Frequency</b>             | 25-250Hz                   |
| <b>Q Level</b>                          | 2-20                       |
| <b>T. H. D.</b>                         | 0.05%                      |
| <b>Signal to Noise Ratio</b>            | 100dB                      |
| <b>Channel Separation</b>               | 70dB                       |
| <b>Idle Current</b>                     | 100mA                      |
| <b>Power Supply</b>                     | DC 10-16V, Negative Ground |
| <b>Dimensions(W x H x D)Inches</b>      | 8.1 x 1.4 x 5.9            |
| <b>Weight</b>                           | 1,250g                     |

## ELECTRICAL WIRING

All **Farenheit** BC-series signal processors and car audio crossovers are equipped with easy top access screw terminals. These terminal are 14K gold Plated in order to ensure excellent electrical contact, and to resist corrosion.

When making electrical connections to the signal processor and crossover, please observe the following:

- Use at least 16 gauge or heavier wires for power and ground connections.
- Wire the crossover directly to the car battery, with a 1A fuse in-line.
- For the ground connection, use the shortest possible wire to a good chassis ground point.
- Wire the remote connection to the remote turn-on connector of your head unit.

## MOUNTING THE CROSSOVER

Mark the location for the mounting screw holes by positioning the crossover where you wish to install it and use a scribe ( or one of the mounting screws ) inserted in each mounting hole to mark the mounting surface. If the mounting surface is carpeted, measure the hole centers and mark with a felt tip pen.

Drill pilot holes in the mounting surface for the mounting screws and insert the mounting screws into these holes. Tighten them securely.

**Note** : Be sure to take note of any wires, lines or other devices in your vehicle which may be located behind any mounting surface !

## PRECAUTIONS

Before you drill or cut any holes, investigate your car's layout very carefully. Take care when you work near the gas tank, fuel lines, hydraulic line and electrical wiring.

Do not operate the crossover when it is unmounted. Attach all audio system components securely within the automobile to prevent damage, especially in an accident.

Do not mount this crossover so that the wire connections are unprotected or in a pinched condition, or likely to be damaged by nearby objects.

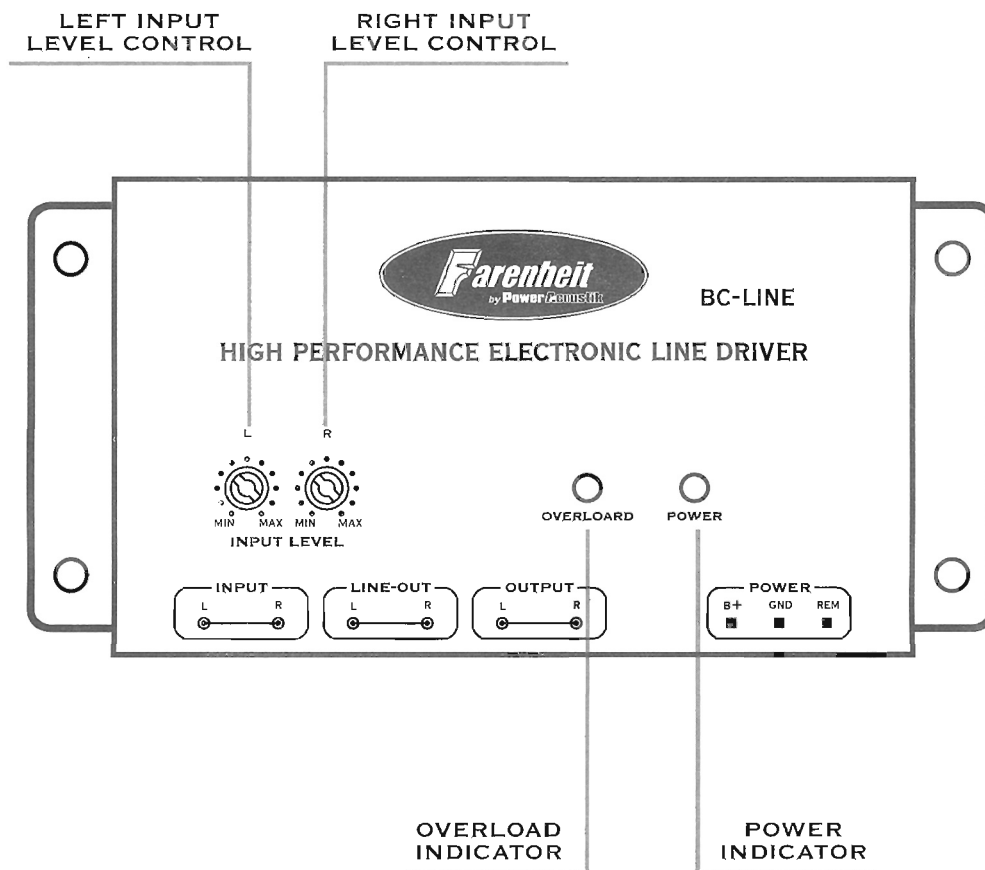
Before marking or breaking power connections in your system, disconnect the vehicle battery. Confirm that your head unit or other equipment is turned off while connecting the input jacks and speaker terminals.



# CONTROLS

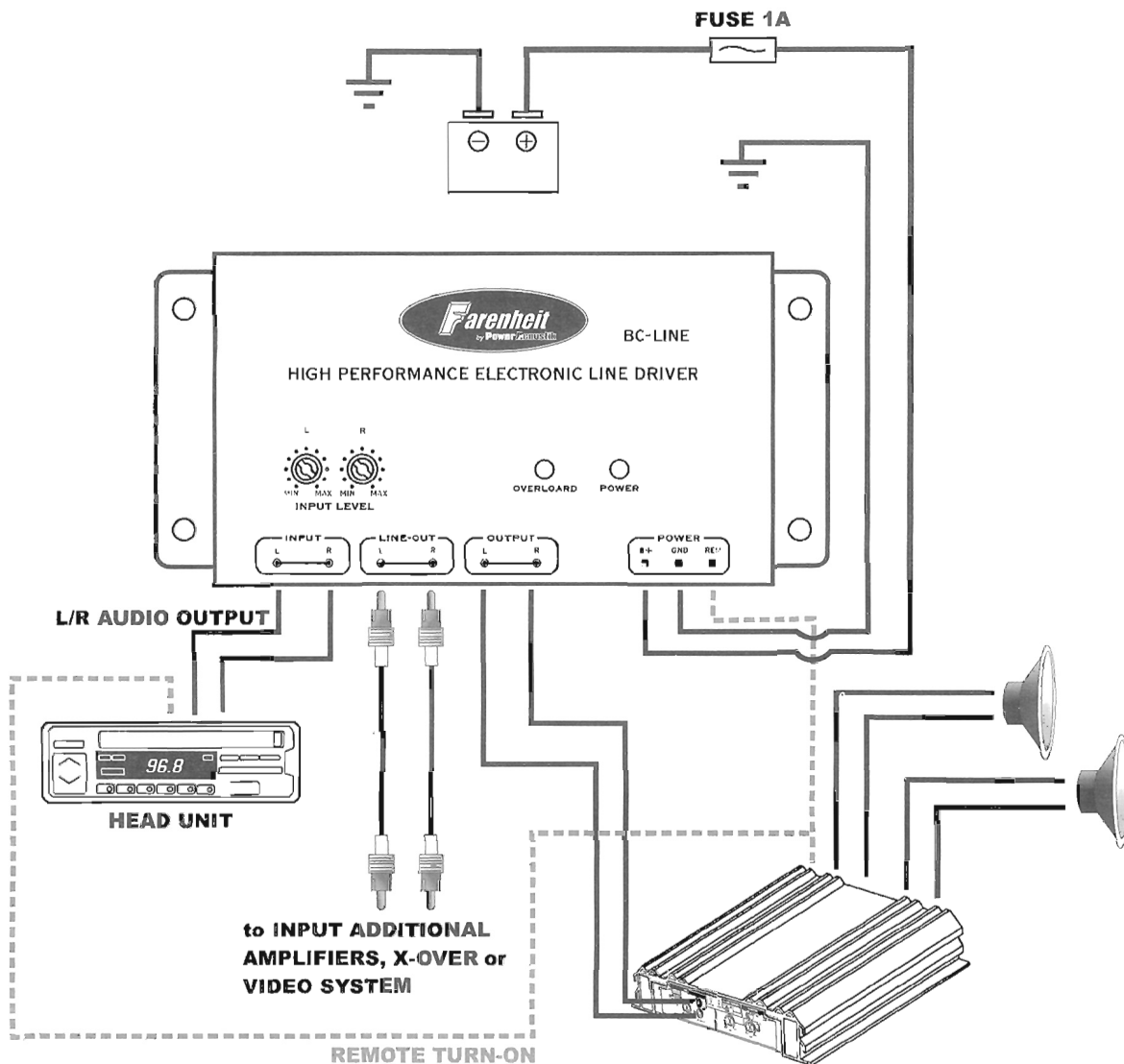
**BC-LINE**

HIGH PERFORMANCE ELECTRONIC LINE DRIVER



## HIGH PERFORMANCE ELECTRONIC LINE DRIVER

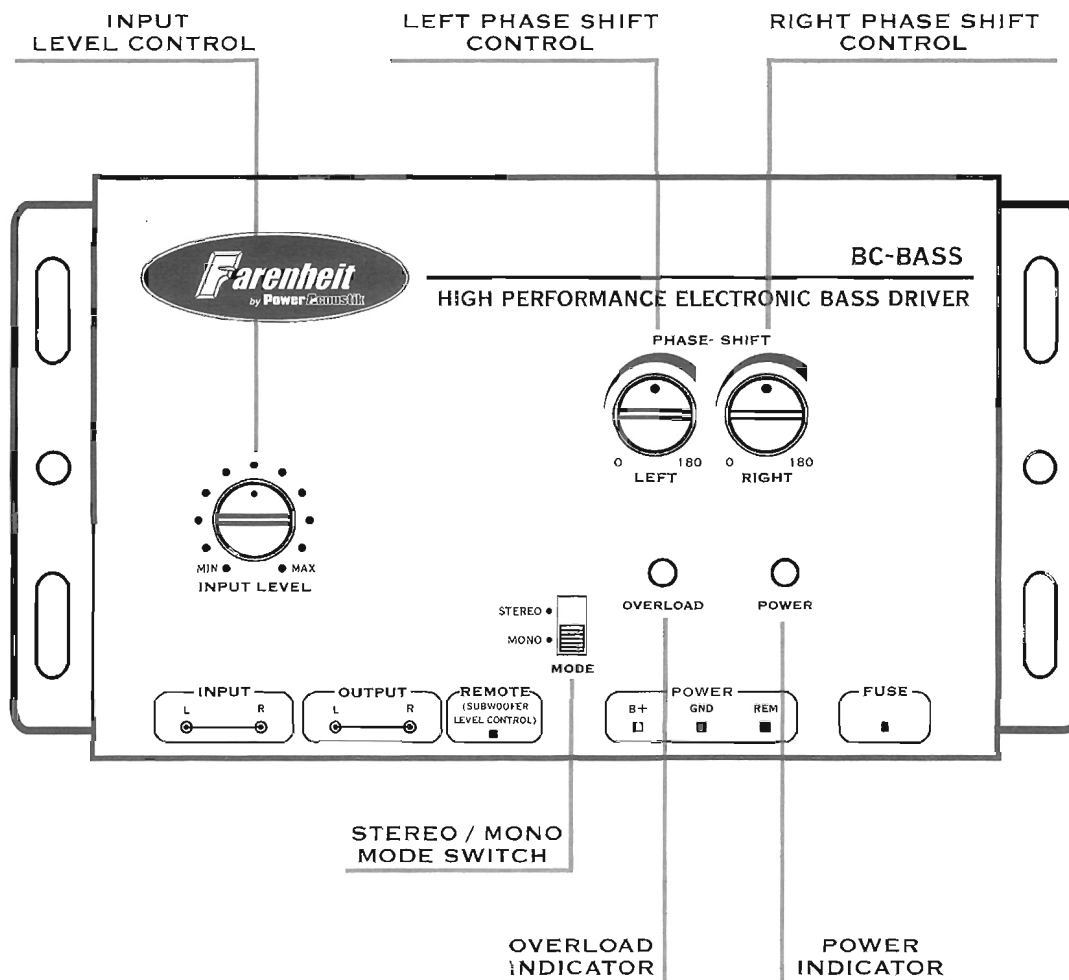
**BC-LINE**



# C O N T R O L S

**BC-BASS**

HIGH PERFORMANCE BASS DRIVER WITH REMOTE CONTROLLER

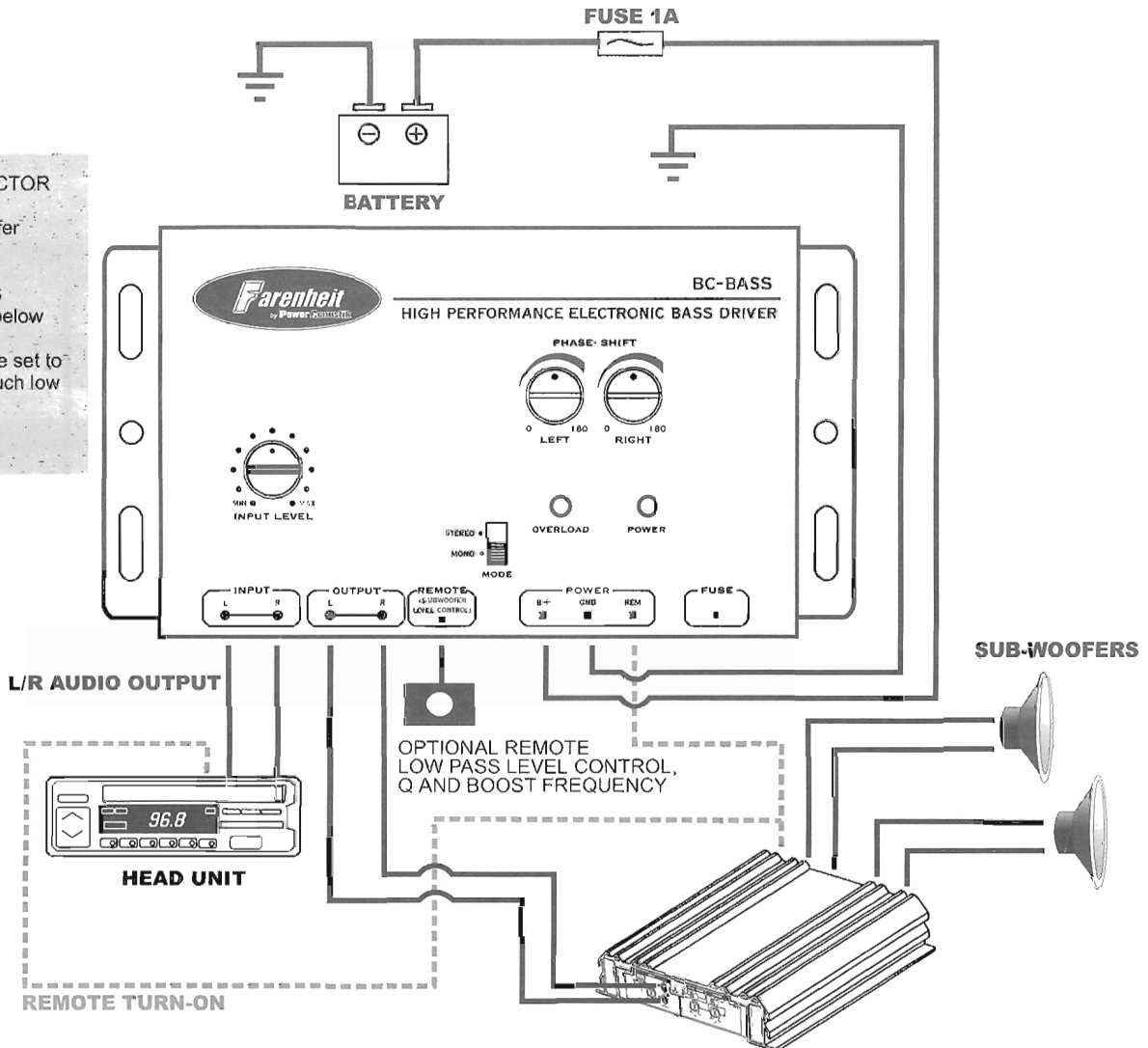


## HIGH PERFORMANCE BASS DRIVER WITH REMOTE CONTROLLER

## BC-BASS

Set the MODE SELECTOR switch to MONO for MONAURAL subwoofer output.

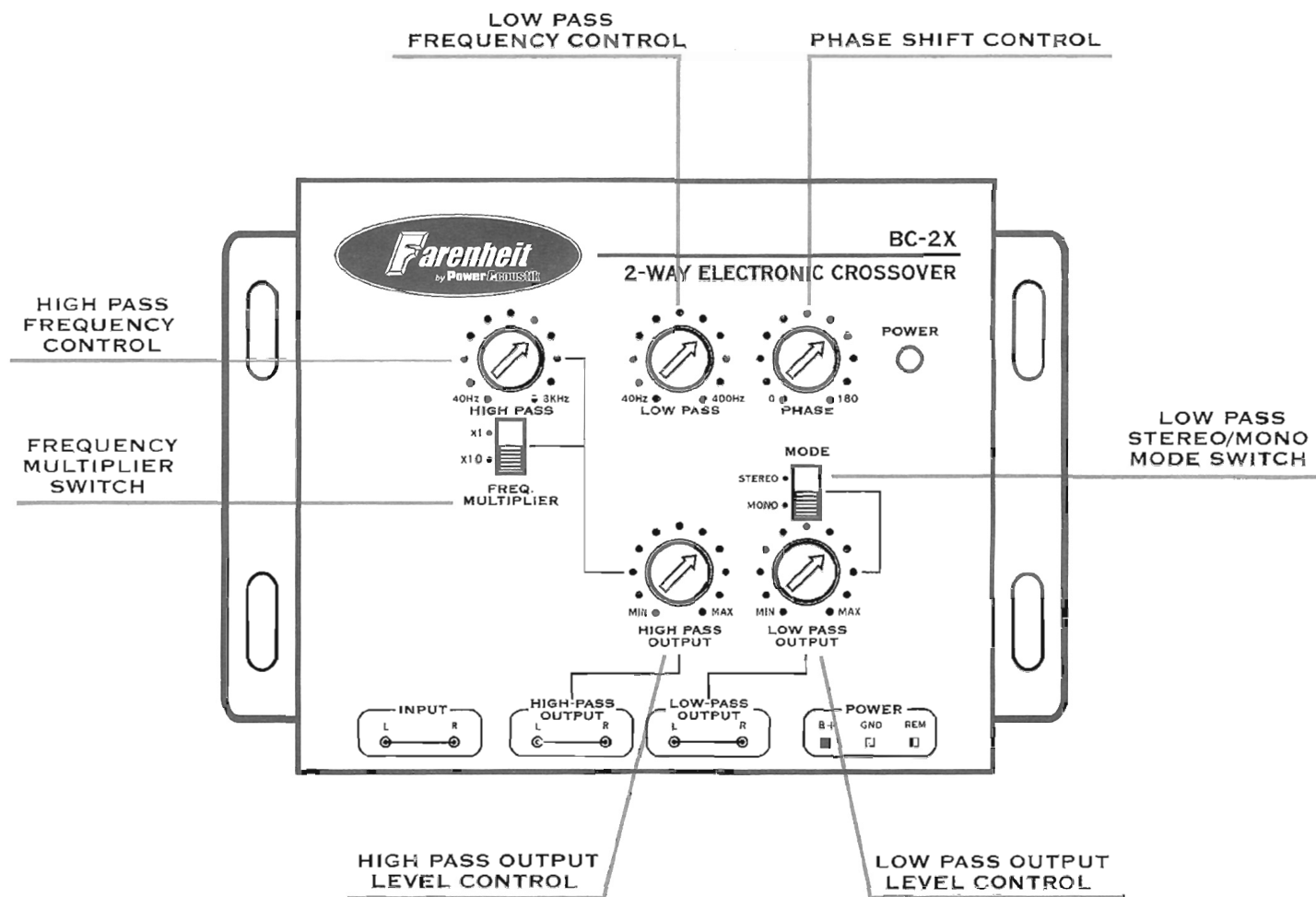
When the LOW PASS FREQUENCY is set below 200Hz, the MODE SELECTOR should be set to MONO since these such low frequencies are non-directional.



# CONTROLS

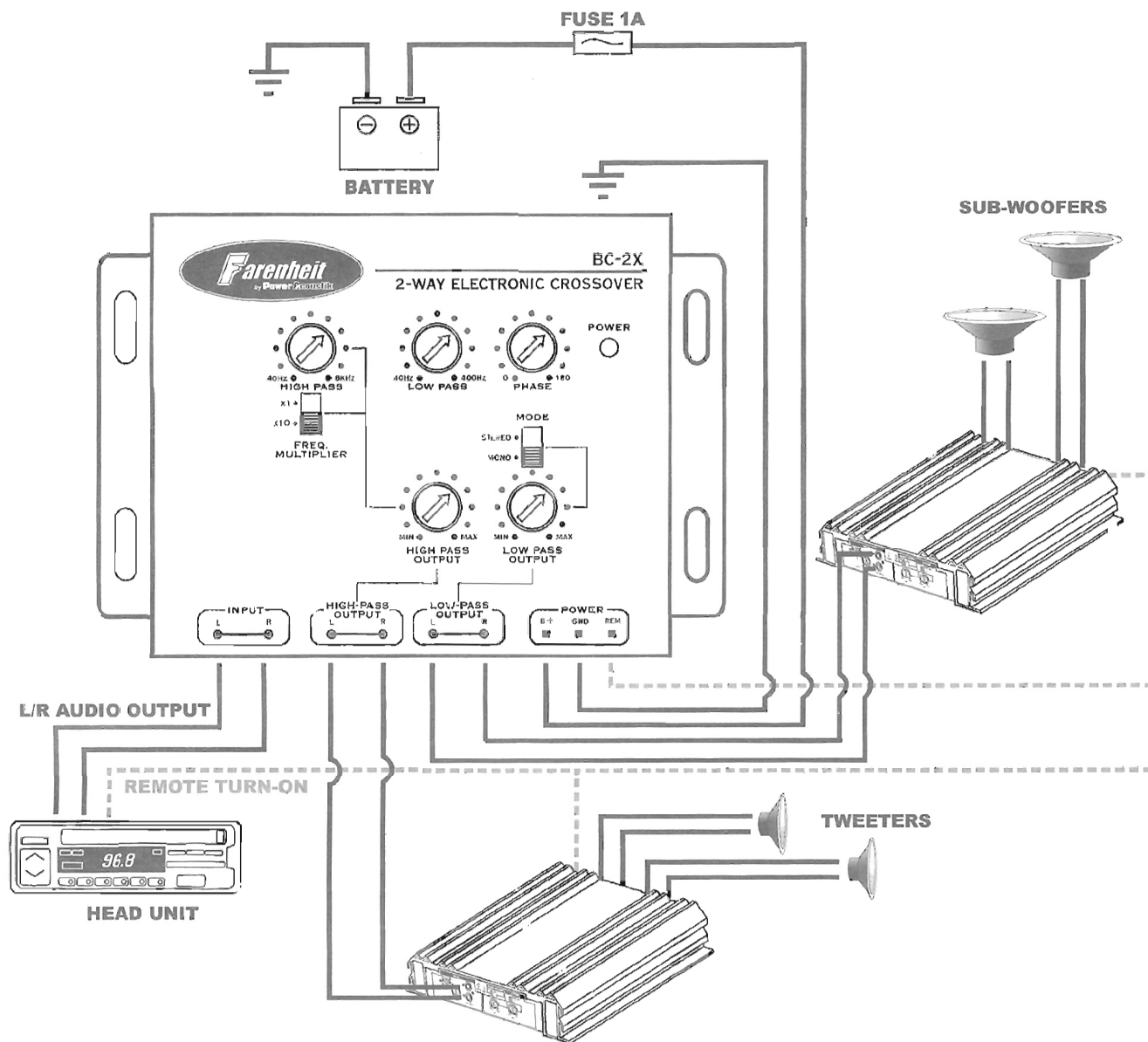
BC-2X

2-WAY ELECTRONIC CROSSOVER



## 2-WAY ELECTRONIC CROSSOVER

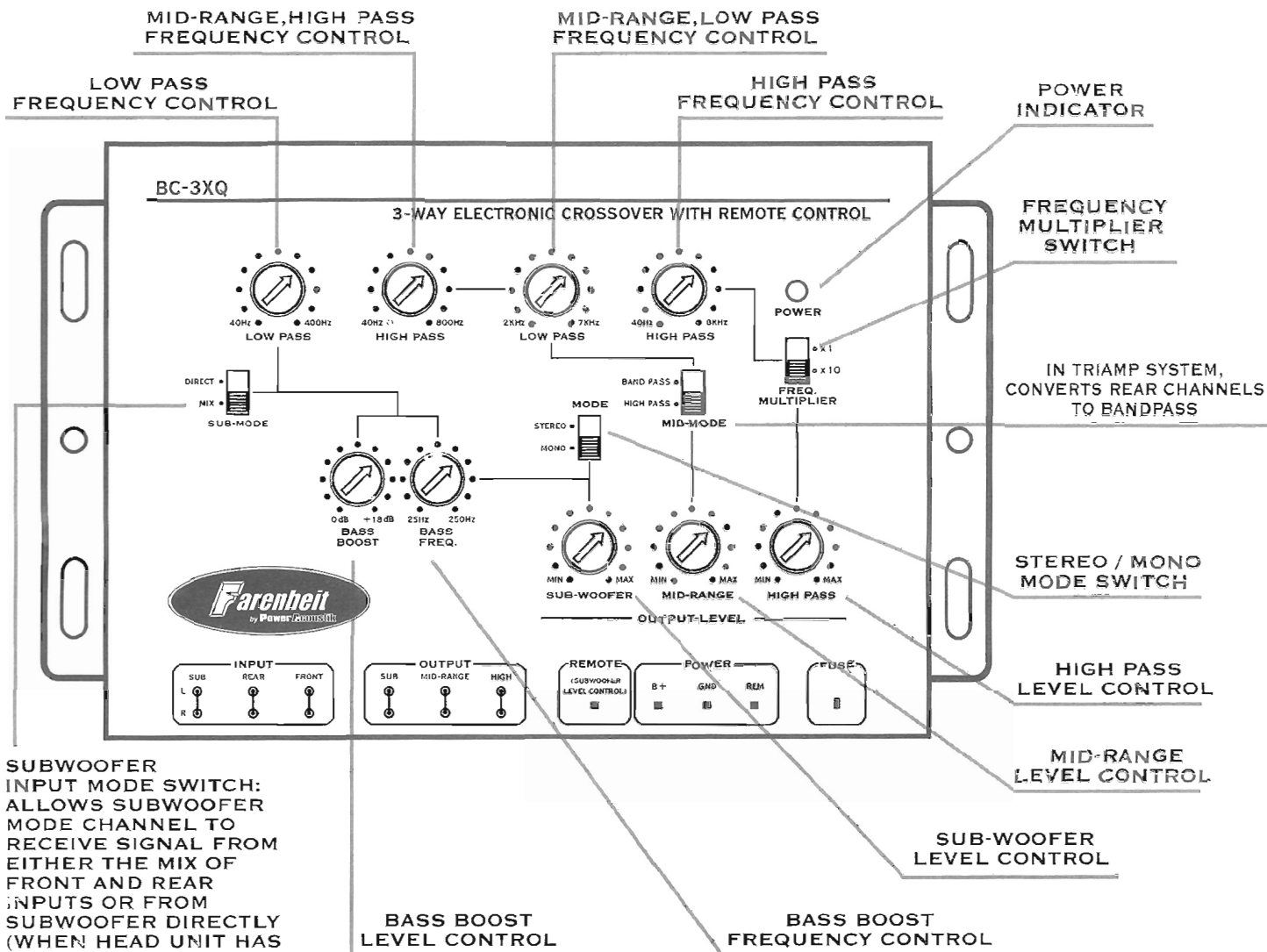
**BC-2X**



# CONTROLS

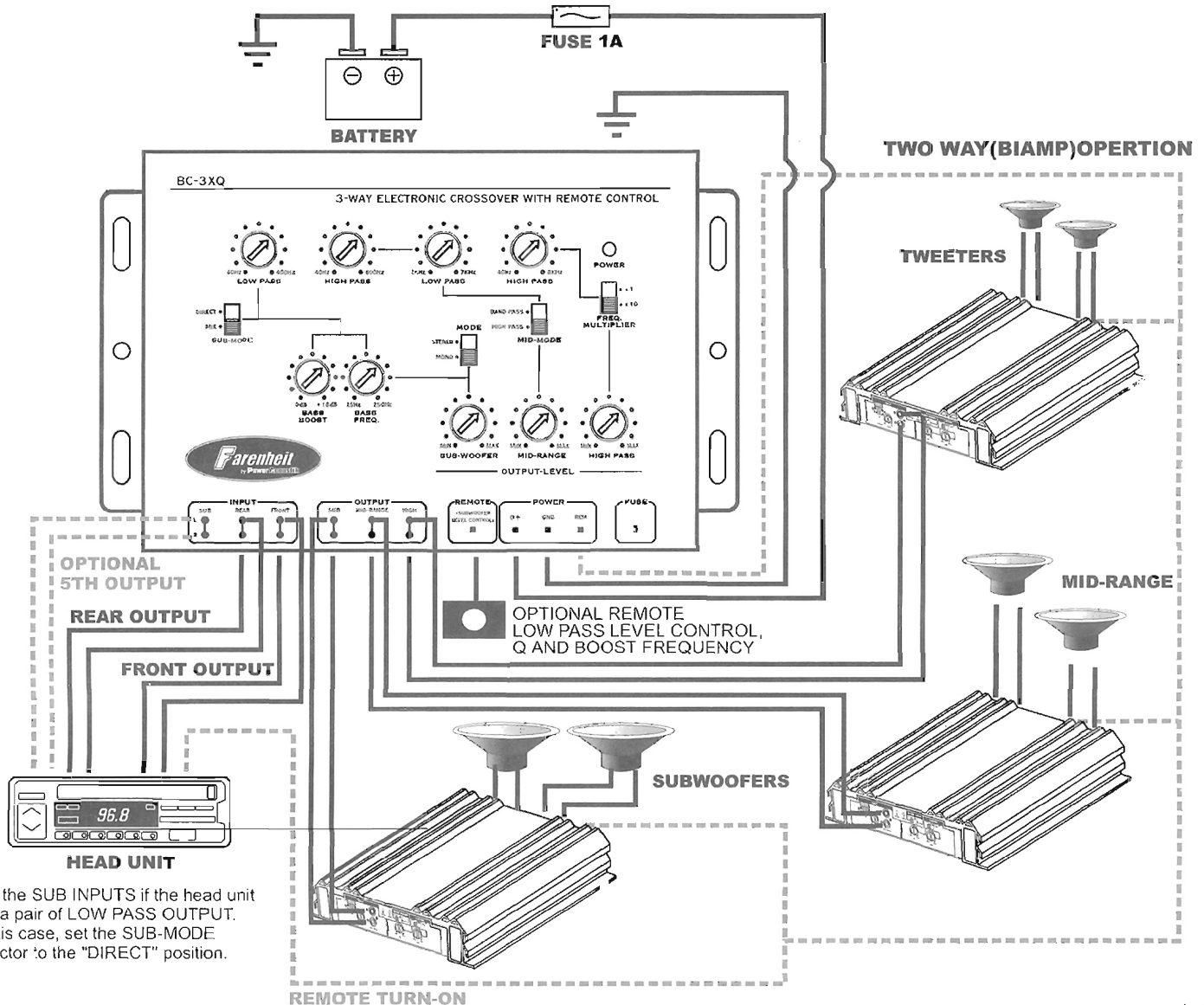
**BC-3XQ**

## 3-WAY ELECTRONIC CROSSOVER WITH REMOTE CONTROLLER



## 3-WAY ELECTRONIC CROSSOVER WITH REMOTE CONTROLLER

### BC-3XQ



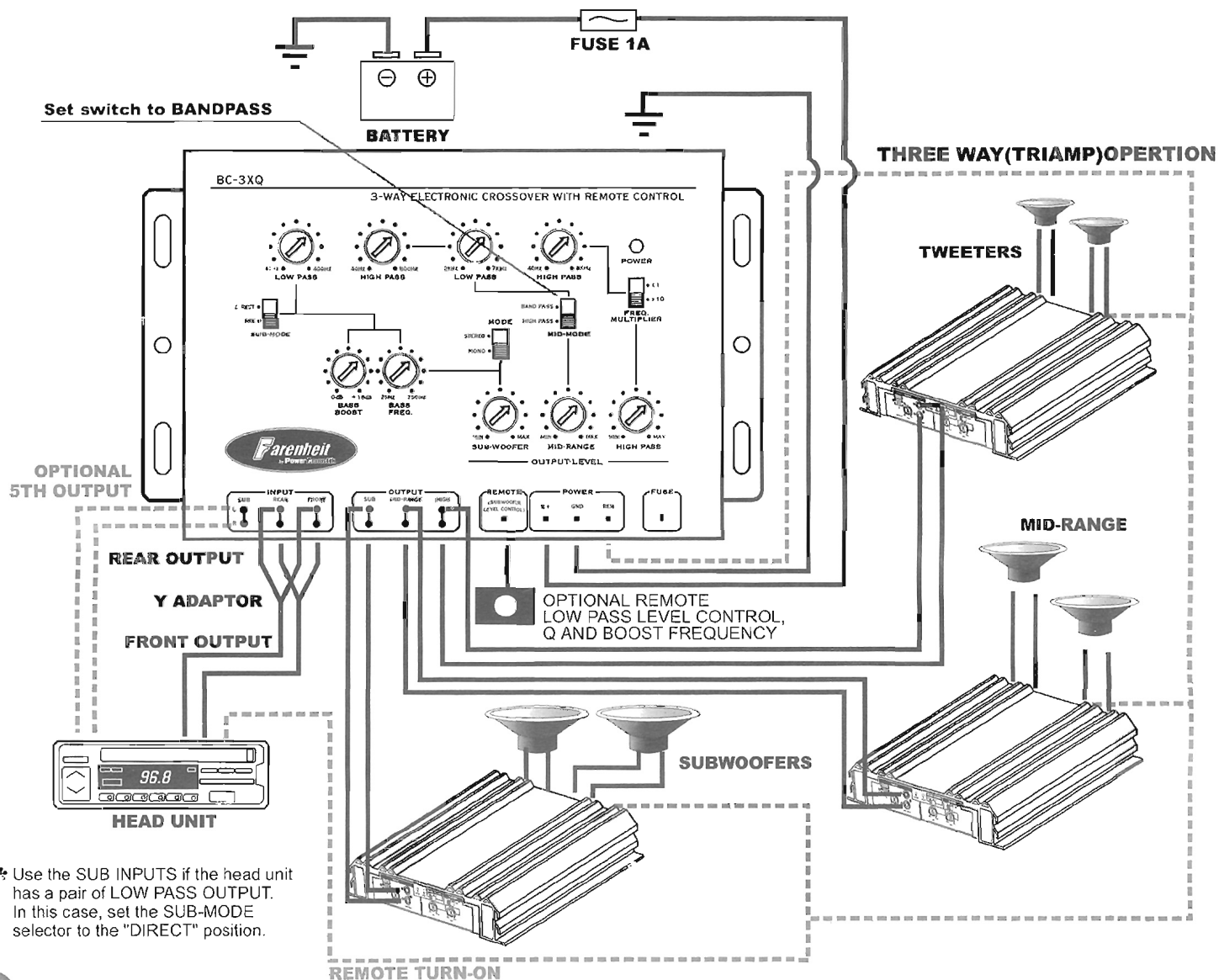
✱ Use the SUB INPUTS if the head unit has a pair of LOW PASS OUTPUT. In this case, set the SUB-MODE selector to the "DIRECT" position.



# CONNECTIONS

**BC-3XQ**

## 3-WAY ELECTRONIC CROSSOVER WITH REMOTE CONTROLLER



**Before removing your amplifier, refer to the list below and follow the suggested procedures. Always test the speakers their wires first.**

## No Output

Confirm that all terminal strip connections are secure and tight.

Check in-line fuse. Both the "+12V" and the "REMOTE" terminals must have +12V referenced to chassis ground

Confirm that the audio signal source (car radio, equalizer, etc.) is connected and is supplying output signal. To check if the amplifier is supplying signal, unplug the RCA cables from the signal source (but leave them plugged into the amp). Briefly tap the center pin of each of the disconnected RCA plugs with your finger. This should produce a noise (feedback) in your speakers.

## Only one channel works

Confirm that all speaker strip connections are secure and tight.

Check the "BALANCE" control on the head unit (or other source ) to verify that it is set to its midpoint.

If you are using the Low Level RCA input, reverse the input plugs at the amplifier ( switch the R with the L ). If the channel which is silent switches to the other side, the problem is either in the head unit/other source or the connecting cables.

## Noise in the Audio

If the noise is a "whine" whose pitch follows the engine speed, confirm that amplifier and any other signal sources ( head unit, etc.) are properly ground.

If the noise is a "clicking" or "popping" noise whose rate follows the engine speed, this usually means that the vehicle is equipped with resistor spark plugs and wires, or that the ignition is in need of service.

Check the routing of the speaker and input wires to make sure they are not adjacent to wires which interconnect lights and other accessories.

If the above steps fail to improve or clear noise interference, the system should be checked by a professional mobile audio installer.